

IX.3.2C-SYSTEM-SNTWKX COMMON BLOCK SNTWKX

Purpose

Common block SNTWKX contains data needed to do network computations.

Listing

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COMMON /SNTWKX/ INWFIL, INWTYP, MAXSNW, INAUTO, FLATMX, FLATMN,
                PP24NW(maxsnw), PPVRNW(maxsnw),
                TA24NW(maxsnw),
                EA24NW(maxsnw),
                STATNW(maxsnw), STIDNW(2, maxsnw),
                CORDNW(2, maxsnw), WORKNW(maxsnw),
                SFLGNW(maxsnw),
                PCHRNW(maxsnw),
                TAINNW(maxsnw), TF24NW(maxsnw), ELEVNW(maxsnw),
                NPP24, NPPVR, NTA24, NTAIN, NTF24, NEA24
                INWSRT, INWDUM(4),
                GENLNW(maxsnw), GPANW(maxsnw)
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Description of Variables

| <u>Variable</u> | <u>Type</u> | <u>Dimension</u> | <u>Word Position</u> | <u>Description</u> |
|-----------------|-------------|------------------|--------------------------|---|
| INWFIL | I*4 | 1 | 1 | Indicator whether common block has been filled: -1 = filled but not enough room to store all stations 0 = not filled >0 = filled with INWFIL stations |
| INWTYP | I*4 | 1 | 2 | Indicator of type of data stored: 1 = only data needed for last NETWORK run stored 2 = all data needed for DEFINE AREA run stored 3 = alphabetical order by station identifier data stored 4 = alphabetical order by station description data stored <u>1</u> / |
| MAXSNW | I*4 | 1 | 3 | Maximum number of stations that can be stored |

| Variable | Type | Dimension | Word Position | Description |
|----------|------|------------|---------------------------|---|
| INAUTO | I*4 | 1 | 4 | Indicator whether automatic network run should be done: 0 = no 1 = yes |
| FLATMX | R*4 | 1 | 5 | Maximum station latitude |
| FLATMN | R*4 | 1 | 6 | Minimum station latitude |
| PP24NW | I*2 | MAXSNW | 7 | Array location of pointers for 24-hr PCPN data: <u>2</u> / - if negative, station is synthetic - if station is not to receive weight in an MAP area, 15000 is added |
| PPVRNW | I*2 | MAXSNW | 7+MAXSNW/2 | Array location of pointers for <24-hr PCPN data <u>2</u> / - if negative, station is synthetic |
| TA24NW | I*2 | MAXSNW | 7+2*MAXSNW/2 | Array location of pointers for max/min TEMP data: <u>2</u> / - if negative, station is synthetic |
| EA24NW | I*2 | MAXSNW | 7+3*MAXSNW/2 | Array location of pointers for PE data <u>2</u> / - if negative, station is synthetic |
| STATNW | I*2 | MAXSNW | 7+4*MAXSNW/2 | State designator (2 characters) |
| STIDNW | A4 | (2,MAXSNW) | 7+5*MAXSNW/2 | Station identifier |
| CORDNW | I*2 | (2,MAXSNW) | 7+5*MAXSNW/2 +2*MAXSNW | NWSRFS/HRAP coordinates (stored as X,Y in tenths of grid units) |
| WORKNW | R*4 | MAXSNW | 7+7*MAXSNW/2 +2*MAXSNW | Work array for storing station weights |
| SFLGNW | I*2 | MAXSNW | 7+7*MAXSNW/2 +3*MAXSNW | Indicator whether NETWORK has been run on this station: - indicator for PCPN data is stored in tens digit - indicator for TEMP data is stored in units digit |
| PCHRNW | I*2 | MAXSNW | 7+8*MAXSNW/2 +3*MAXSNW | Array location of precipitation |

| Variable | Type | Dimension | Word Position | Description |
|----------|------|-----------|-----------------------------|---|
| | | | | characteristics <u>3</u> / |
| TAINNW | I*2 | MAXSNW | 7+9*MAXSNW/2 +3*MAXSNW | Array location of pointers for instantaneous TEMP data <u>2</u> / |
| TF24NW | I*2 | MAXSNW | 7+10*MAXSNW/2 +3*MAXSNW | Array location of pointers for Forecast max/min TEMP data <u>2</u> / |
| ELEVNW | I*2 | MAXSNW | 7+11*MAXSNW/2 +3*MAXSNW | Station elevation (in meters to the nearest meter) |
| NPP24 | I*2 | 1 | 7+12*MAXSNW/2 +3*MAXSMW | Number of stations with 24-hour PCPN data |
| NPPVR | I*2 | 1 | 8+12*MAXSMW/2 +3*MAXSNW | Number of stations with less than 24-hour PCPN data |
| NTA24 | I*2 | 1 | 9+12*MAXSNW/2 +3*MAXSNW | Number of stations with maximum TEMP data |
| NTAIN | I*2 | 1 | 10+12*MAXSNW/2 +3*MAXSNW | Number of stations with instantaneous TEMP data |
| NTF24 | I*2 | 1 | 11+12*MAXSNW/2 +3*MAXSNW | Number of stations with forecast TEMP data |
| NEA24 | I*2 | 1 | 12+12*MAXSNW/2 +3*MAXSNW | Number of stations with PE data |
| INWSRT | I*2 | 1 | 13+12*MAXSNW/2 +3*MAXSNW | Indicator whether common block has been sorted: 0 = No 1 = Yes |
| INWDUM | I*2 | 4 | 14+12*MAXSNW/2 +3*MAXSNW | Unused |
| GENLNW | I*2 | MAXSNW | 18+12*MAXSNW/2 +3*MAXSNW | Record number of the GENL parameters in the Preprocessor Parametric Data Base |
| GPANW | I*2 | MAXSNW | 18+13*MAXSNW/2 +3*MAXSNW | Station grid point address |

Notes:

1/ When the alphabetical order by description is being determined, the station descriptions are stored beginning with the array STIDNW.

The descriptions are stored as if an array STDSNW(5,MAXSNW) were equivalent to the first location in the array STIDNW.

- 2/ Array location is the location of the pointers in the pointer array returned from the Preprocessor Data Base (PPDB) read daily data routine (RPDDLX) for the given data type.
- 3/ Array location is the location of the characteristics in the array returned from the Preprocessor Parametric Data Base (PPPDB) read routine RPPCHR.